

## REMARKS

Reconsideration of this application, as amended, is respectfully requested.

Initially Applicants would like to thank the Examiner for the indication that claims 81-87 contain allowable subject matter.

In the Official Action, the Examiner rejects claims 1-3, 5-16, 18-22, 24, 27-41, 47-49, 51-62, 64, 66-68, 70, 73-78, and 127-131 under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. In response, Applicants respectfully traverse the Examiner's rejection under 35 U.S.C. § 101 for at least the reasons set forth below.

With regard claims 1-3, 5-16, 18-22, 24, and 27-41, the Examiner argues that the claimed invention is directed to software alone and is thus non-statutory subject matter. The Examiner makes similar arguments with regard to claims 47-49, 51-62, 64, 66-68, 70, 73-78, and 127-131.

Applicants respectfully disagree with the Examiner's classification of claims 1-3, 5-16, 18-22, 24, 27-41, 47-49, 51-62, 64, 66-68, 70, 73-78, and 127-131 as being directed to non-statutory subject matter.

Firstly, such claims are directed to methods and encoders which recite a useful result, namely inserting a digital signature into digital data. Thus, by their plain meaning, such claims are not directed to software, but to methods and encoders for inserting a digital signature into digital data. The fact that such method steps or means may be carried out by software does not transform such claims into software claims. Thus, Applicants first respectfully submit that claims 1-3, 5-16, 18-22, 24, 27-41, 47-49, 51-62, 64, 66-68, 70, 73-

78, and 127-131 are not directed to software but to methods and encoders for inserting a digital signature into digital data and are thus statutory subject matter under 35 U.S.C. § 101.

Secondly, the Examiner argues that software is not statutory subject matter within the meaning of 35 U.S.C. § 101 without citing any authority for such a proposition. Applicants respectfully disagree and submit that software is statutory subject matter under 35 U.S.C. § 101 and request that the Examiner cite authority to the contrary. Both the Supreme Court and The Court of Appeals for the Federal Circuit have held as such. In Diamond v. Diehr, 450 U.S. 175, 209 USPQ 1 (1981) the court reiterated from a previous Supreme Court holding that "While a scientific truth, or the mathematical expression of it, is not a patentable invention, a novel and useful structure created with the aid of knowledge of scientific truth may be." The Federal Circuit has recently clarified the confusing status of software patents brought about by long-standing judicial application of the mathematical algorithm and business methods exception in the landmark decision of State Street Bank & Trust Company v. Signature Financial Group, Inc. 149 F.3d 368 (Fed. Cir. 1998), cert. denied (1999). In State Street, the court emphatically reaffirmed an earlier holding by the court that the mathematical algorithm exception does not apply to software as long as the software produces "a 'useful, concrete and tangible result' [through] the transformation of data . . . by a machine through a series of mathematical calculations." See also AT&T Corp., v. EXCEL Communications, Inc., 172 F.3d 1352 (Fed. Cir. 1999) ("[T]o be patentable an algorithm must be applied in a 'useful' way").

Thus, Applicants respectfully submit that claims 1-3, 5-16, 18-22, 24, 27-41, 47-49, 51-62, 64, 66-68, 70, 73-78, and 127-131 are not directed to software but to methods and encoders for inserting a digital signature into digital data and furthermore, even if such

claims are to be considered software, they recite "a useful, concrete and tangible result," namely, the insertion of a digital signature into digital data. Therefore, Applicants respectfully submit that claims 1-3, 5-16, 18-22, 24, 27-41, 47-49, 51-62, 64, 66-68, 70, 73-78, and 127-131 recite statutory subject matter and the rejection of the same under 35 U.S.C. § 101 be withdrawn.

In the Official Action, the Examiner rejects claim 24 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner argues that the scope of claim 24 cannot be determined because it is dependent upon canceled claim 23. In response, claim 24 has been amended to depend from claim 22. Accordingly, it is respectfully requested that the rejection of claim 24 under 35 U.S.C. § 112, second paragraph, be withdrawn.

In the Official Action, the Examiner rejects claims 131 and 133 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,862,218 to Steinberg. (hereinafter "Steinberg"). Additionally, the Examiner rejects claims 130 and 132 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,499,294 to Friedman (hereinafter "Friedman") in view of U.S. Patent No. 6,507,371 to Hashimoto et al., (hereinafter "Hashimoto"). Furthermore, the Examiner rejects claims 117, 120, and 124 under 35 U.S.C. § 103(a) as being unpatentable over Friedman in view of U.S. Patent No. 6,256,736 to Coppersmith et al., (hereinafter "Coppersmith"). Still further, the Examiner rejects claims 122, 123, and 129 under 35 U.S.C. § 103(a) as being unpatentable over Friedman in view of Coppersmith, Steinberg and Daly, James, Computerworld, "Fingerprinting a Computer Security Code" July 27, 1992, vol 26, Iss 30, pg 25 (hereinafter

“Daly”). Still further, the Examiner rejects claim 127 under 35 U.S.C. § 103(a) as being unpatentable over Friedman in view of Coppersmith, Steinberg and Daly and further in view of Hashimoto. Still further, the Examiner rejects claims 108, 111, 112, 114, 116, and 134 under 35 U.S.C. § 103(a) as being unpatentable over Steinberg in view of Daly. Still further, the Examiner rejects claim 110 under 35 U.S.C. § 103(a) as being unpatentable over Steinberg and Daly and further in view of Hashimoto. Still further, the Examiner rejects claim 113 under 35 U.S.C. § 103(a) as being unpatentable over Steinberg and Daly in view of Coppersmith. Lastly, the Examiner rejects claims 118, 119, 125, and 126 under 35 U.S.C. § 103(a) as being unpatentable over Friedman, Hashimoto, and Coppersmith in view of U.S. Patent No. 6,182,218 to Saito (hereinafter “Saito”).

In response, Applicants respectfully traverse the Examiner’s rejections under 35 U.S.C. § 103(a) for at least the reasons set forth below.

Applicants respectfully submit that the Examiner has used impermissible hindsight in rejecting claims 108, 110-114, 116-120, 122-126, and 129-134 under 35 U.S.C. § 103(a). In other words, Applicants respectfully submit that there is no motivation or suggestion to combine the cited references in the various rejections made under 35 U.S.C. § 103(a).

With regard to claims 131 and 133, the Examiner argues that because Steinberg discloses a modem and telephone lines, motivation exists to make use of the Internet as the network involved because of the cost and convenience that would be saved by using the pre-established communication medium instead of creating a private network. Applicants disagree. Steinberg does not disclose a network and neither suggests the Internet as the network.

With regard to claims 130 and 132, the Examiner does not discuss any suggestion or motivation for combining the teachings of Friedman and Hashimoto. The Examiner only argues that Friedman discloses the use of GPS data for indicating geographic coordinates of the camera to be included in the border data and that Hashimoto discloses use of technology to incorporate GPS data into a camera system. Firstly, Applicants respectfully submit that there is no motivation or suggestion to combine the Friedman and Hashimoto references and the Examiner does not offer any. Secondly, neither Friedman nor Hashimoto disclose that the GPS data is used for authenticating the digital data.

With regard to claims 117, 120, and 124, the Examiner offers no suggestion or motivation for combining the Friedman, Hashimoto and Coppersmith references for claim 120. With regard to claims 117 and 124, the Examiner's reasoning for the motivation could have only been gleaned from the present invention and therefore constitutes impermissible hindsight. The Examiner argues that if Friedman were modified as taught by Coppersmith, the authentication information would not be included in the border framing the image but would instead be embedded in the least significant bits of the image. However, neither Friedman nor Coppersmith disclose any suggestion to do so. In fact, the reason why Friedman embeds the data in the frame is to avoid altering the image data. Applicants respectfully submit that there is no motivation or suggestion to combine at least Friedman and Coppersmith with regard to claims 122, 123, 127, and 129.

With regard to claims 108, 110-116, 118, 119, 125, 126, and 134, Applicants respectfully submit that there is no motivation to combine any of the cited references with Daly. Daly discusses the use of biometrics as a means for identification. However, Daly makes no reference of using such means for authenticating data, such as inserting such data as

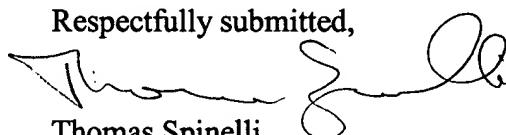
a watermark. Therefore, there is absolutely no motivation or suggestion to combine the references showing authentication of data with Daly which shows identifying a person by biometric recognition.

Therefore, Applicants respectfully submit that the rejections of claims 108, 110-114, 116-120, 122-126, and 129-134 under 35 U.S.C. § 103(a) are improper and must be withdrawn.

The Federal Circuit in In re Rouffet, 47 USPQ2d 1453 (Fed. Cir. 1998) stated that virtually all inventions are combinations of old elements. Therefore an Examiner may often find every element of a claimed invention in the prior art. To prevent the use of hindsight based on the invention to defeat patentability of the invention, the Examiner is required to show a motivation to combine the references that create the case of obviousness. Applicants respectfully submit that the Examiner has not met this burden. Furthermore, where a feature is not shown or suggested in the prior art references themselves, the Federal Circuit has held that the skill in the art will rarely suffice to show the missing feature. Al-Site Corp. v. VSI International Inc., 174 F.3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999) (Rarely, however, will the skill in the art component operate to supply missing knowledge or prior art to reach an obviousness judgment).

In view of the above, it is respectfully submitted that this application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance issued. If the Examiner believes that a telephone conference with Applicant's attorneys would be advantageous to the disposition of this case, the Examiner is requested to telephone the undersigned.

Respectfully submitted,



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